41. (Amended) The method of claim 58, wherein the polypeptide comprises amino acid residues 1 to 49 of SEQ ID NO:3.

42. (Amended) The method of claim 58, wherein the polypeptide comprises amino acid residues 21 to 157 of SEQ ID NO:3.

43. (Amended) The method of claim 58, wherein the polypeptide comprises amino acid residues 1 to 157 of SEQ ID NO:3.

44. (Amended) The method of claim 58, wherein the polypeptide comprises amino acid residues 21 to 419 of SEQ ID NO:3.

45. (Amended) The method of claim 58, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO:3.

46. (Amended) The method of claim 58, wherein the Flt4-expressing cell is *in vitro*.

47. (Amended) The method of claim 58, wherein the Flt4-expressing cell is *in vivo*.

48. The method of claim 47, wherein the Flt4-expressing cell is an endothelial cell.

49. The method of claim 48, wherein the endothelial cell is in lymphatic endothelia.

50. (Amended) A method for promoting growth of endothelial cells that express Flt4 tyrosine receptor, comprising contacting the cells with a polypeptide comprising amino acid residues 21 to 49 of SEQ ID NO:3, in an amount effective to promote growth of the endothelial cells.

51. (Amended) The method of claim 59, wherein the polypeptide comprises amino acid residues 1 to 49 of SEQ ID NO:3.

52. (Amended) The method of claim 59, wherein the polypeptide comprises amino acid residues 21 to 157 of SEQ ID NO:3.

53. (Amended) The method of claim 59, wherein the polypeptide comprises amino acid residues 1 to 157 of SEQ ID NO:3.

54. (Amended) The method of claim 59, wherein the polypeptide comprises amino acid residues 21 to 419 of SEQ ID NO:3.

55. (Amended) The method of claim 59, wherein the polypeptide comprises amino acid sequence of SEQ ID NO:3.

56. (Amended) The method of claim 59, wherein the endothelial cells are *in vivo*.

57. The method of claim 56, wherein the endothelial cells are in lymphatic endothelia.

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~~58.~~ (New) A method for stimulating tyrosine phosphorylation of a Flt4 tyrosine kinase receptor in a Flt4-expressing cell, comprising contacting the cell with a polypeptide comprising:

a) amino acid residues 1 to 49 of SEQ ID NO:3;
b) amino acid residues 21 to 157 of SEQ ID NO:3;
c) amino acid residues 1 to 157 of SEQ ID NO:3;
d) amino acid residues 21 to 419 of SEQ ID NO:3; or
e) the amino acid sequence of SEQ ID NO:3,

in an amount effective to stimulate tyrosine phosphorylation of said Flt4 tyrosine kinase receptor.

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~~59.~~ (New) A method for promoting growth of endothelial cells that express Flt4 tyrosine receptor, comprising contacting the cells with a polypeptide comprising:

a) amino acid residues 1 to 49 of SEQ ID NO:3;
b) amino acid residues 21 to 157 of SEQ ID NO:3;
c) amino acid residues 1 to 157 of SEQ ID NO:3;
d) amino acid residues 21 to 419 of SEQ ID NO:3; or
e) the amino acid sequence of SEQ ID NO:3,

in an amount effective to promote the growth of the endothelial cells.

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